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# (12) United States Patent

Ishida et al.

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## (54) SWEETENER COMPOSITION

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#### Related U.S. Application Data

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A23L 1/23		Int. Cl. <sup>7</sup>	(51)
426/548; 426/590; 560/4		U.S. Cl.	(52)

560/39, 40, 41

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# (57) ABSTRACT

One embodiment of the present invention provides a sweetener composition, which includes a mixture of N-{N-(3,3dimethylbutyl)-L-α-aspartyl}-L-phenylalanine 1-methyl ester, and Acesulfame K, wherein a ratio of the Acesulfame K to a total amount of the N-{N-(3,3-dimethylbutyl)-L-αaspartyl}-L-phenylalanine 1-methyl ester and the Acesulfame K is in the range of 10 to 97% by weight, methods of making and of using. Another embodiment of the present invention provides a method for preparing a sweetener composition, which includes drying an A-type crystal of N-{N-(3,3-dimethylbutyl)-L-α-aspartyl}-Lphenylalanine 1-methyl ester to obtain a C-type crystal of N-{N-(3,3-dimethylbutyl)-L-α-aspartyl}-L-phenylalanine 1-methyl ester. Another embodiment of the present invention provides a method for producing a sweetener, which includes admixing N- $\{N-(3,3-dimethylbutyl)-L-\alpha$ aspartyl}-L-phenylalanine 1-methyl ester with Acesulfame K, wherein a ratio of the Acesulfame K to a total amount of the N-{N-(3,3-dimethylbutyl)-L-α-aspartyl}-Lphenylalanine 1-methyl ester and the Acesulfame K is in the range of 10 to 97% by weight. Another embodiment of the present invention provides a method for improving the dissolution rate of N- $\{N-(3,3-dimethylbutyl)-L-\alpha-aspartyl\}$ -L-phenylalanine 1-methyl ester, which includes, prior to dissolving the N-{N-(3,3 -dimethylbutyl)-L- $\alpha$ -aspartyl}-Lphenylalanine 1-methyl ester, admixing the N-{N-(3,3dimethylbutyl)-L-\alpha-aspartyl}-L-phenylalanine 1-methyl ester with Acesulfame K, wherein a ratio of the Acesulfame K to a total amount of the N-{N-(3,3-dimethylbutyl)-L- $\alpha$ aspartyl\-L-phenylalanine 1-methyl ester and the Acesulfame K is in the range of 10 to 97% by weight.

17 Claims, 2 Drawing Sheets